Mahdi Taherahmadi

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M.Sc. Student, Computing Science, Simon Fraser University, BC, Canada

RESEARCH INTERESTS	Reinforcement Learning, Human-Robot Interaction, Computational Neuroscience, Cognitive Science

EDUCATION

Simon Fraser University, British Columbia, Canada

M.Sc, Computing Science - **GPA: 3.84**   *Sept' 19 - Sept' 21*

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

B.Sc, Computer Engineering.   *July' 13 - July' 18*

RESEARCH EXPERIENCE & PROJECTS

Research Assistant - MARS Lab

- Human Navigational Intent Inference
Supervisor: Prof. Mo Chen   *Aug '19 - Present*

RESEARCH EXPERIENCE & PROJECTS

Data Analyst - Rahnema Co.

- RDMA Big Data R&D Team
- Optimizing Digital Advertising Campaigns   *Jan '18 - Mar '19*

Research Intern - AIRLab - Polytechnic University of Milan

- Simulation and Evaluation of Realistic Wireless Communication in Multi-Robot Scenarios
Supervisor: Prof. F.Amigoni   *May '17 - Sept '17*

Research Assistant - Cognitive Robotics Lab - AUT

- Vision-based Advanced Driver Assistance System(ADAS)
BSc Project - Superviser: Dr. Shiry   *Oct '16*

- Comparing Corresponding fMRI, ECOG and EEG data in Human VTC
Joint Project with Royan Institute of Research - Superviser: Dr. Khaligh-Razavi   *Oct '16*

- Victim Detection and 3D Pose Estimation from 2D Images for a Rescue Robot
Supervisor: Dr. Shiry   *Nov '16*

- Community Detection in Social Networks
Fanavard International Data Mining Challenge   *Oct '16*

- RoboCup Rescue Simulation League Base Code
Team SOS VR, Supervisor: Dr. Shiry   *Sept '16*

- Object Classification using Convolutional Neural Networks with Attention Layers
CNN Group, Supervisor: MSc S.MalekGHasemian, Prof. Safabakhsh   *Jan '16*

- Robust Cross Sign Detection for Aerial Robot using Template Matching Algorithm
Supervisor: Dr. Shiry — *Dec '15*

- Humanoid Robot Localization and Behavior Strategy
AUT Robotics Research Center(ARC), Supervisor: Dr. Shiry — *July '14 - July '15*

Awards & Achievements

3rd Place - *FIRA RoboWorld Cup 2018* — *Aug '18*
- Team MCS, Simurosot - Miro Middle, Taichung, Taiwan
3rd Place - *FIRA RoboWorld Cup 2018* — *Aug '18*
- Team MCS, Simurosot - RoboChallenge, Taichung, Taiwan
13th Place out of 100 teams - *AUTDMC 2017* — *Nov '17*
- Amirkabir Data Mining Cup 2017, Tehran, Iran
2nd Place - *RoboCup 2017* — *July '17*
- Team SOS VR, Rescue Simulation Virtual Robot league, Nagoya, Japan
1st Place - *RoboCup IranOpen 2017* — *Apr '17*
- Team SOS VR, Rescue Simulation Virtual Robot league, Tehran, Iran
9th Place out of 60 Teams - *Sharif Programming Marathon 2016* — *Sept '16*
- Magnet: The Localized Shopping Recommender System using PredictionIO Platform,
Sharif University of Technology, Tehran, Iran
3rd Place - *RoboCup 2016* — *July '16*
- Team SOS VR, Rescue Simulation Virtual Robot league, RoboCup 2016, Leipzig, Germany
3rd Place - *RoboCup 2015* — *July '15*
-Teen size humanoid soccer league, RoboCup 2015, Hefei, China
Top 0.03% - among more than 300,000 participants — *July '13*
- Nation-wide University Entry Exam

Publications & Technical Reports

S. Azami, **M. TaherAhmadi**. "Parametric and Non-Parametric Model for Power Usage Data Time Series Analysis", Technical Report on Statistical Machine Learning Final Project, Oct '16.

S. Azami, **M. TaherAhmadi**. "Implementing and Evaluating Naive Bayes Model and PGM for Heart Disease Classification", Technical Report on SML Final Project, Oct '16.

M. TaherAhmadi. "Implementing and Analysing Linear Regression on a Data Set of Student Grades", Technical Report on SML Final Project, Oct '16.

M. TaherAhmadi, S. Azami, S. Shiry, "S.O.S VR Team Description Paper, RoboCup2016 Rescue Virtual Robot League", *International RoboCup Competition*, Julyy 2016, Leipzig, Germany.

S. Azami, **M. TaherAhmadi**, "Image Compression Using Low-Rank Matrix Approximation", Technical Report for Advanced Mathematics course Project, Dec '16.

Teaching Experience

Computer Engineering Department, Amirkabir University of technology:
 - Teaching Assistant - *Linear Algebra and its Applications* - Dr. Ehsan Nazerfard *spring '17*
 - Teaching Assistant - *Principles of Programming Languages(C)* - Dr. Shiry — *Fall '16*
 - Teaching Assistant - *Engineering Statistics* - Dr. AmirHaery — *Spring '16*
 - Teaching Assistant - *Discrete Structures* - Dr. Fallah — *Spring '16*
 - Teaching Assistant - *Data Structures & Algorithms* - Dr. Dehghan — *Fall '15*
 - Teaching Assistant - *Principles of Programming Languages(C)* - Dr. Shiry — *Fall '15*
 - Teaching Assistant - *Advanced Programming (JAVA)* - Dr. Pourvatan — *Spring '15*
 - Teaching Assistant - *Principles of Programming Languages(C)* - Dr. Shiry — *Fall '14*
Medical Engineering Department, Amirkabir University of technology:
 - Teaching Assistant - *Robotics* - Dr. AhmadiPajouh — *Fall '15*

Notable Coursework Projects

Heart Disease Classification using PGM - *Statistical Machine Learning* — *Fall '16*
Power Usage Data Time Series Analysis - *Statistical Machine Learning* — *Fall '16*
Linear Regression on Student Grades Data - *Statistical Machine Learning* — *Fall '16*
Face Recognition Using SVD - *Advanced Engineering Mathematics* — *Fall '16*
SVD Image Compressor - *Advanced Engineering Mathematics* — *Fall '16*

Graph Based Motion Planner - *Design Algorithm*		*Spring '15*
Huffman Coding Data Compression - *Data structures & algorithms*		*Fall '14*
Joumoung (The Strategy Game) - *Advanced Programming(Java)*		*Spring '14*
Mini Assembler - *Principles of Programming Languages(C)*		*Fall '13*

WORK EXPERIENCE

Data Analyst - Python, Plotly Dash, Apache Airflow, Apache Spark, Oracle DB, MongoDB   *Jan '18 - Present*
- *Rahnema Company*, Beheshti ave, Tehran, Iran.

Back-End Developer - Python, JS, PHP, Symfony, Git, Redmine   *July '15 - Oct '16*
- *ZoodFood Company, IIG*(Iran Internet Group), Vanak sq, Tehran, Iran.

Software Developer - Java, MySql, HTML, CSS, Illustrator, Git   *Aug '13 - Dec '14*
- *RAPNA*, Roshd Science & Technology Center, Tehran, Iran.

COMPUTER SKILLS

Languages: C, C++, Qt, Java, Python, Matlab, Bash, JS, PHP, Assembly
Database Systems: MySQL, SQL Server
Typesetting: LaTeX, Microsoft Word
Frameworks, Operating Systems, and Scientific Tools: Linux, ROS, OpenCV, Weka, Caffe, Theano, Spark, NumPy, Pandas, Scikit-learn, pgmpy, Git, Docker
Designing Tools: Adobe Photoshop, Adobe Illustrator, Gimp

VOLUNTEER EXPERIENCE & POSITION OF RESPONSIBILITY

Technical Committee of RoboCup AsiaPacific 2018 - Virtual Robot Rescue.	*Dec '18*
Technical Committee of RoboCup IranOpen 2018 - Virtual Robot Rescue.	*Apr '18*
Lecturer at CEIT Robotic Summer School - *Introduction to ROS*	*June '17*
Presenter at 9th Linux Festival - *Introduction to Virtual Robot*	*May '17*
Technical Committee of RoboCup IranOpen 2017 - Virtual Robot Rescue.	*Apr '17*
Leader of Team S.O.S vr - RoboCup Rescue, Virtual Robot Competition.	*July '16*
Presenter at 8th Linux Fest - *Introduction to Cuda, Caffe, ROS & Docker*	*May '16*
Member of 7th, 8th & 9th Linux Fest Organization team	*May '16*
Director of Cognitive Robotics Lab - Computer Engineering department.	*July '15*
Coach and Captain of Faculty football team.	*Sept '14*
Chief Editor of 0&1 magazine - *CEIT Students Scientific Chapter*	*Oct '14*
Editor at Pouyesh magazine - *CEIT students association*	*Sept '13*

SPOKEN LANGUAGES

Persian(*Native*), **Turkish**(*Native*), **Arabic**(*Fair*)
English(*Fluent*) (TOEFL - 10 Nov - R:26 L:28 S:22 W:23 - Total:99)
                      (TOEFL - 1 Dec - R:25 L:25 S:26 W22 - Total:98)

REFERENCES

Mo Chen - Assistant Professor
- School of Computing Science, Simon Fraser University
- *mochen@cs.sfu.ca* - Home Page

Angelica Lim - Assistant Professor
- School of Computing Science, Simon Fraser University
- *angelica@rosielab.ca* - Home Page

Saeed Shiry - Assistant Professor
- Computer Engineering Department, Amirkabir University of technology
- *shiry@aut.ac.ir* - Home Page

Francesco Amigoni - Associate Professor
- Department of Electronics, Information and Bioengineering, Polytechnic of Milan
- *francesco.amigoni@polimi.it* - Home Page